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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,612	11/14/2003	Bryan M. Cantrill	03226.338001; SUN040165	7007
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OSHA LIANG L.L.P./SUN 1221 MCKINNEY, SUITE 2800 HOUSTON, TX 77010			EXAMINER NGUYEN, PHILLIP H	
			ART UNIT 2191	PAPER NUMBER
			MAIL DATE 06/11/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/713,612

Applicant(s)

CANTRILL, BRYAN M.

Examiner

Phillip H. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 20040205.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to the amendment filed on 3/19/2007. Claims 1-20 are pending and have been considered below.

Drawings

2. The amendment filed on 3/19/2007 overcomes the objection to FIGURE 4 of previous action. Therefore, the objection is withdrawn.

Specification

3. The amendment filed on 3/19/2007 overcomes the objection to the specification of previous action. Therefore, the objection is withdrawn.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-4, 9, 13, 14, 17 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Chang (United States Patent No.: 5,768,592).

As per claims 1, 13 and 18:

Chang discloses:

- obtaining data from an instrumented program using a probe (see at least col. 5, lines 28-30 **"the source code is instrumented by placing probes in various locations..."**);
- associating the data with an enabled probe identification (see at least col. 9, lines 57-58 **"the compiler assigns a unique ID to each probe location identified processing continues where the compiler 105 computes a static attribute record for each give probe location"**); and
- storing the data in the data set, wherein the enabled probe identification is stored in the enabled probe identification component and the data is stored in the associated data set component (see at least col. 9, lines 64-66 **"the compiler allocates space in the source data structure that will hold the execution profile information for each probe location"** – each profile information has a unique probe ID to identify them).

As per claim 2:

Chang discloses:

- defining a tracing function wherein the tracing function comprises an action (see at col. 2, lines 51-52 **"predicting the run-time behavior (profile information)"**);
- associating the action with the enable probe identification (see at least col. 9, line 65 **"execution profile information for each probe location"**); and
- associating the probe with the enable probe identification (see at least col. 9, lines 57-58 **"assigns a unique ID to each probe location"**).

As per claim 3:

Chang discloses:

- wherein the tracing function is defined by a consumer (see at least col. 5, lines 19-21 "**code developer makes code modifications to the source being developed by adding new features, instructions etc.**" – the developer controls the profiling process).

As per claim 4:

Chang discloses:

- wherein the enabled probe identification is defined on a per-consumer basic (see at least col. 5, lines 28-33 "**source code is instrumented by placing probes in various locations to count...by the compiler or an instrumentation program designed by the code developer**").

As per claim 9:

Chang discloses:

- wherein the data set is stored in a kernel-level buffer (see col. 9, lines 64-66 "**allocates space in the source data structure that will hold the execution profile information for each probe location**").

As per claim 14:

Chang discloses:

- consumer defining an action (see at least col. 5, lines 19-21 “**code developer makes code modifications to the source being developed by adding new features, instructions etc.**” – the developer controls the profiling process), wherein the tracing framework assigns the enabled probe identification to the action (see at least col. 9, line 65 “**execution profile information for each probe location**”).

As per claim 17:

Chang discloses:

- wherein the enabled probe identification is defined with respect to the consumer (see at least col. 5, lines 28-33 “**source code is instrumented by placing probes in various locations to count...by the compiler or an instrumentation program designed by the code developer**”).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 5-8, 10-12, 15-16, and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang (United States Patent No.: 5,768,592), in view of Meek et al. (United States Patent No.: US 6,362,779 B1).

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As per claims 5 and 8:

Chang discloses:

- associating the enabled probe identification with metadata.

However, Meek discloses an analogous method using metadata tables for storing parameters ("**metadata table**" col. 7, line 8).

Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to combine the use of metadata table of Meek in Chang's method for associating probe identification with the metadata tables. One of the skilled in the art would have been motivated to modify Chang's method to use metadata table for storing data because "**One way to account for new types of data or changes in... format is through the use of one or more metadata tables**" (see Meek at least col. 7, lines 6-8).

As per claims 6 and 11:

Meek further discloses:

- wherein the metadata defines the layout of the data ("**...format is through the use of one or more metadata tables**" col. 7, lines 7-8).

As per claims 7, 12, 16 and 20:

Meek further discloses:

- wherein the metadata includes at least one selected from the group consisting of an action name, a module name, a data size, a data type, and an action function

(**"One way to account for new type of data... through the use of metadata tables"** col. 7, line 6).

As per claim 10:

Chang discloses:

- copying the data set to a user-level buffer (**"allocate a queue to store data"** Paragraph 0062), wherein the data set comprises an enabled probe identification and data (see at least col. 9, lines 64-66 **"the compiler allocates space in the source data structure that will hold the execution profile information for each probe location"** – each profile information has a unique probe ID to identify them); and
- obtaining the enabled probe identification from the data set (see at least col. 10, lines 17-22 **"attributes records and the profile records are combined into a database of the probe locations and the profile information of the source code. In combining the static attributes and profile records duplicate attributes are eliminates..."** – probe ID for the location of each record is retrieved in order to combine with other records).
- processing the data set using the data (see at least col. 10, lines 17-22 **"attributes records and the profile records are combined into a database of the probe locations and the profile information of the source code. In combining the static attributes and profile records duplicate attributes are eliminates..."**).

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Chang does not explicitly disclose:

- obtaining metadata using the enabled probe identification; and
- processing the data set using the metadata.

However, Meek discloses an analogous method that uses the metadata table for storing data ("**metadata tables**" col. 7, line 8).

Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to combine Meek's metadata table in Chang's method in order to obtaining metadata using the enabled probe identification and processing the data set using the metadata. One of the skilled in the art would have been motivated to use metadata table in Chang's approach because "**One way to account for new types of data or changes in... format is through the use of one or more metadata tables**" (see Meek col. 7, lines 6-8).

As per claims 15 and 19:

Chang does not explicitly disclose:

- an EPID-Metadata table relating the enabled probe identification to metadata.

However, Meek discloses an analogous system that uses metadata tables for storing data ("**metadata tables**" col. 7, line 8).

Therefore, it would have obvious to one having an ordinary skill in the art at the time the invention was made to combine Meek's metadata tables with Chang's system in order for a metadata table relating the enabled probe identification to metadata. One of the ordinary skill in the art would have been motivated to use metadata in Chang's

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system because **"One way to account for new types of data or changes in...format is through the use of one or more metadata tables"** (see Meek col. 7, lines 6-8).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phillip H. Nguyen whose telephone number is (571) 270-1070. The examiner can normally be reached on Monday - Thursday 10:00 AM - 3:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Y. Zhen can be reached on (571) 272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PN
6/1/2007


WEI ZHEN
SUPERVISORY PATENT EXAMINER